

ABSTRACT

A system and method for gray-scale or color printing is disclosed. One embodiment of the present invention transposes multiple pairs of pixels at the same time. During this process a record of the values of the cost function is kept. After a good statistical sample of multiple pairs of pixel replacements has occurred, the top five combinations are then selected for further refinement. During this next round of calculations the multiple of pairs of pixels transposed is reduced by a factor of two. In another embodiment of the present invention, the selection of the groups of pixels to transpose is controlled. During the initial iteration stages, a minimal radial offset of separation is imposed upon the pixel selection. Typically this minimum radial offset starts at one quarter of the array height. This selection process ensures that transpositions have the largest mixture around the array.